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I also certify that the attached copy of the request for grant of a Patent (Form 1/77) bears an amendment, effected by this office, following a request by the applicant and agreed to by the Comptroller-General.

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Signed 

Dated 26 June 2003

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APPLICANT: Henry ROSENTHAL
APPLICATION NO.: New U.S. Application
FILED: October 28, 2003
FOR: TAPERED GRIP FOR MOTORCYCLE HANDLEBAR
ATTORNEY DOCKET NO.: 116364

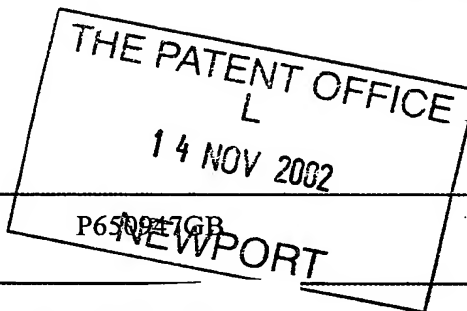
14NOV02 E763384-1 D02835
P01/7700 0.00-0226538.7

Request for grant of a patent

(see the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

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1. Your reference

2. Patent application number
(The Patent Office will fill in this part)

0226538.7

14 NOV 2002

3. Full name, address and postcode of the or of each applicant (underline all surnames)

RENTHAL LIMITED
BREDBURY PARK WAY
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Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

GB

6837850001

4. Title of the invention

TAPERED GRIP FOR MOTORCYCLE HANDLEBAR

5. Name of your agent (if you have one)

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Patents ADP number (if you know it)

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
(If you know it)

Date of filing
(day/month/year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day/month/year)

8. Is a statement of inventorship and or right to grant of a patent required in support of this request? (Answer "Yes" if:)

YES

- a) any applicant named in part 3 is not an inventor, or
- b) there is an inventor who is not named as an applicant, or
- c) any named applicant is a corporate body; see note (d)

9. Enter the number of sheets for any of the following items you are filing with this form.
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Continuation sheets of this form -

Description 5

Claim(s) 2

Abstract -

Drawing(s) 1

- 10 If you are also filing any of the following items state how many against each item:

Priority documents -

Translation of priority documents -

Statement of inventorship and right to grant of a patent (patents form 7/77) 2 COPIES

Request for preliminary examination and search (patents form 9/77) 1

Request for substantive examination (patents form 10/77) -

Any other documents -
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11

I/We request the grant of a patent on the basis of this application.

Signature

Date 13/11/02

Urquhart - Dykes & Lord

URQUHART-DYKES & LORD

- 12 Name and daytime telephone number of person to contact in the United Kingdom

R A BARKER 0161 832 9353

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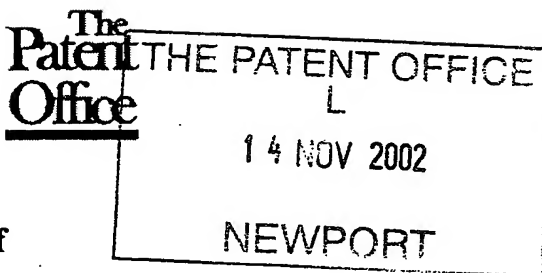
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7/77

Statement of inventorship and of right to grant of a patent

The Patent Office

Cardiff Road, Newport
South Wales NP9 1RH

1.	Your reference	P650947GB
2.	Patent application number (If you know it)	0226538.7
		14 NOV 2002
3.	Full name of the or of each applicant	RENTHAL LIMITED
4.	Title of the invention	TAPERED GRIP FOR MOTORCYCLE HANDLEBAR
5.	State how the applicant(s) derived the right from the inventor(s) to be granted a patent	BY VIRTUE OF SECTION 39(1) OF THE PATENTS ACT 1977, THE INVENTOR BEING AN EMPLOYEE OF THE APPLICANT.
6.	How many, if any additional Patents Form 7/77 are attached to this form? (see note (c))	1 COPY
7.	<p>I/We believe that the person(s) named over the page (and on any extra copies of this form) is/are the inventor(s) of the invention which the above patent application relates to:</p> <p>Signature <u>Urquhart-Dykes & Lord</u> Date 13/11/02</p> <p>URQUHART-DYKES & LORD</p>	
8.	Name and daytime telephone number of person to contact in the United Kingdom	R A BARKER 0161 832 9353

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Enter the full names, addresses and postcode of the inventors in the boxes and underline the surnames

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Patent ADP number (if you know it) 850562 000 1

Patent ADP number (if you know it)

Reminder

Have you signed the form?

Patent ADP number (if you know it)

- P650947GB -

TAPERED GRIP FOR MOTORCYCLE HANDLEBAR

This invention concerns a hand grip adapted for fitting onto a motorcycle handlebar end section.

Such a grip conventionally comprises a hollow cylindrical body of flexible resilient material, such as rubber (natural or synthetic), having a closed end and an open end and an annular flange projecting radially outwards at the open end. Respective grips are fitted snugly and non-rotatably onto each end of a handlebar so that the closed end abuts the end of the bar. The flange provides an inner limit for a rider's hand where his/her forefinger and thumb encircle the grip, in use.

In order to provide greater comfort to the rider and enhanced vibration damping it is known to form such grips from two compounds, i.e. two differing formulations of rubber, so that the flange, an inner layer of the cylindrical body and its closed end are formed from a firmer, less flexible compound, while an outer layer of the cylindrical body is formed from a softer, more flexible compound.

It is also known to provide the outer layer of such a grip with projections distributed in a pattern over its external surface. Indeed, provision of such a pattern of projections, which only

project from the surface by something less than 1mm in most cases, is well known generally for all types of handlebar grips to reduce potential for slippage by the rider's hands.

It has been observed that motorcycle hand grips tend to wear more quickly in the region below the arch of the thumb and forefinger of the rider.

An object of the invention is to provide for excess wear in this region so that the hand grip, as a whole, might last longer before splitting or needing replacement.

A further object is to provide enhanced comfort and vibration damping to the hands of the rider.

This object is achieved in a hand grip having the features specified above in that the cylindrical body tapers externally from adjacent the flange to adjacent the closed end.

The external diameter of a hand grip in accordance with the invention may reduce by less than 5mm from adjacent the flange to adjacent the closed end.

In embodiments where the cylindrical body is formed with a plurality of projections distributed over its external surface, the external taper in the body is advantageously provided by the projections decreasing in height from adjacent the flange to adjacent the closed end.

Indeed, the overall size of such projections may conveniently decrease in size from adjacent the flange to adjacent the closed end.

In embodiments where the cylindrical body is formed from an inner layer and an outer layer of different formulations of flexible, resilient material, in which respect the outer layer is of greater flexibility than the inner layer, the inner layer is preferably of substantially constant external diameter, while the outer layer tapers in its external diameter. Moreover, the outer layer taper may be provided by projections of decreasing height, as aforesaid, on its external surface.

The invention will be described further, by way of example, with reference to the drawings, in which:

Fig. 1 is a side elevation of a preferred practical embodiment of the hand grip of the invention;

Fig. 2 is a perspective view of the same hand grip; and

Fig. 3 is also a perspective view, but with the hand grip rotated compared to Fig. 2 so as to show the other side.

The illustrated hand grip has a hollow cylindrical body 10, a closed end 12 thereto, and an open end from which an annular flange 14 projects radially outwards.

The hand grip is formed from two different grades of rubber. A firmer less flexible grade is used to form a base or inner layer of the body 10, as well as the closed end 12, the flange 14 and a raised pattern of adjoining rectangles 16 on one side of the body 10. A softer, more flexible grade is used to form an outer layer to the body 10, including a pattern of surface

projections 18, which are also present inside the boundary of the aforesaid rectangular pattern 16 of the stiffer material.

The projections 18 in this embodiment are generally in the form of a plurality of adjacent square pyramids, each having a diamond shaped base, i.e. its diagonal being axial relative to the cylindrical body 10 of the grip. The overall size of the respective pyramidal projections 18 decreases gradually from adjacent the flange 14 to adjacent the closed end. Thus the diamond shaped bases decrease in area and the height of the projections also decreases. This provide an overall taper to the external diameter of the body 10.

Such taper need not be great to serve its purpose. It may be an overall reduction in external diameter of only 2mm from adjacent the flange 14 to adjacent the closed end. It is unlikely to be more than a 5mm reduction in external diameter.

By making the region adjacent the flange 14 somewhat thicker, particularly making this extra thickness from the softer rubber compound, extra cushioning of the rider's hand is provided in exactly the region of greatest pressure and greatest wear, i.e. below the arch formed by thumb and forefinger. Also, because there is more material, this region does not wear down, split and fail as quickly as hitherto in the case of substantially constant external diameter grips.

The use of a gradual taper achieves these advantages without making the handgrip overall too thick for effective gripping/encircling by the rider's hand, as the region towards the closed end 12 is still of virtually the same external diameter as on conventional grips.

In other embodiments the taper can be achieved differently, without use of two compounds or external projections, or if the latter are present they may be of a different shape and size to the illustrated embodiment.

CLAIMS

1. A hand grip adapted for fitting onto a motorcycle handlebar end section and comprising a hollow cylindrical body having a closed end and an open end and an annular flange projecting radially outwards at the open end, characterised in that the cylindrical body tapers externally from adjacent the flange to adjacent the closed end.
2. A hand grip according to claim 1 wherein the external diameter of the cylindrical body reduces by less than 5mm from adjacent the flange to adjacent the closed end.
3. A hand grip according to claim 1 or 2 wherein the cylindrical body is formed from an inner layer and an outer layer of different formulations of flexible, resilient material, in which respect the outer layer is of greater flexibility than the inner layer.
4. A hand grip according to claim 3 wherein the annular flange and the closed end are formed of the same formulation of material as the inner layer of the cylindrical body.
5. A hand grip according to claim 3 or 4 wherein the inner layer is of substantially constant external diameter, while the outer layer tapers in its external diameter.
6. A hand grip according to any preceding claim wherein the cylindrical body is formed with a plurality of projections, distributed over its external surface, and the external taper in the body is provided by the projections decreasing in height from adjacent the flange to adjacent the closed end.

7. A hand grip according to claim 6 wherein the projections have a base area which decreases in size from adjacent the flange to adjacent the closed end.
8. A hand grip adapted for fitting onto a motorcycle handlebar end section substantially as hereinbefore described with reference to and as illustrated by the accompanying drawing.

